

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph being on page 7, line 5 and ending on page 7, line 20 with the following amended paragraph:

Moreover, referring to FIG. 2, the container 10 can be a bearing body such as a quartz glass tube or a testing slide (試片?), in which the specific compound it contains can be a body compound, such as glucose, cholesterol, uric acid, lactate, phospholipids, and triglycerides. As to the first enzyme, it has to be selected appropriately according to the type of specific compound that exists. The luminol reagent can be selected from the chemiluminescence reagent, such as luminol, 2-methyl indole, isoluminol, dioxetane, acridinium ester, lucigenin, AMPPD, CDP-Star, and CSPD. Also, the current mirror 14 and the resistor 16 can be integrated with a current/voltage converting circuit 22, and the resistor 16 can be replaced by a capacitor. Through the current/voltage converting circuit 22, the current signal can be converted into the analog voltage signal so as to be outputted to the analog/digital converter. Moreover, the photodiode 12, the current mirror 14, and the resistor 16 can be integrated on a CMOS sensing chip 24, enabling the CMOS sensing chip 24 to have functions of sensing the chemiluminescence as well as converting the optical signal into an analog voltage signal for outputting, as shown in FIG. 3.

Please replace the paragraph being on page 8, line 11 and ending on page 9, line 8 with the following amended paragraph:

Furthermore, the invention also performs quantitative analysis on the glucose to verify the feasibility of the invention. First, the glucose and the glucose oxidase will produce a reaction and generate H_2O_2 , wherein the chemical reaction is: $Glucose + O_2 + 2H_2O \xrightarrow{Glucose\ Oxidase} Gluconic\ acid + 2H_2O_2$. Next, the H_2O_2 and the horseradish peroxidase will produce a reaction and generate the chemiluminescence, wherein the ~~chemical~~ chemical reaction is: $2H_2O_2 + luminol \xrightarrow{Peroxidase} 3\text{-aminophthalate} + N_2 + \text{Light (425 nm)}$. Finally, the biochemical sensing device of the invention will sense the light generated by the chemiluminescent reaction for measuring the quantity of glucose. Also, FIG. 5, FIG. 6, and FIG. 7 show the measured curves of horseradish peroxidase, H_2O_2 , and glucose, respectively according to the invention. As shown in FIG. 5, when the horseradish peroxidase is under 1 unit, the activity of horseradish peroxidase will be directly proportional to the voltage measured by the biochemical sensing device of the invention. One unit of horseradish peroxidase means that 1 mg of purpurogallin can be catalyzed from pyrogallol in 20 seconds at PH 6.0 at 20°C. FIG. 6 shows relationship between the concentration of H_2O_2 and the measured voltage. Finally, it can be understood from the measured curve of glucose shown in FIG. 7 that if the concentration of glucose is under 5 mM, the measured voltage

will have an obvious change when the concentration of glucose has a slight change. Therefore, the invention actually can perform a precise quantitative analysis on the glucose by employing the glucose curve.